

Title (en)
Lithium secondary battery

Title (de)
Lithium-Sekundärbatterie

Title (fr)
Batterie secondaire au lithium

Publication
EP 2624333 B1 20171018 (EN)

Application
EP 12198939 A 20121221

Priority
• KR 20120012027 A 20120206
• KR 20120025722 A 20120313

Abstract (en)
[origin: EP2624333A1] Disclosed is a lithium secondary battery (100) which comprises a separator (112) comprising a substrate and a coating layer, the coating layer comprising an inorganic compound, a polymer and an organic/inorganic bonding silane compound having a first reactive functional group; and an electrode (113, 114) having contact with the coating layer, the electrode comprising an active material and a binder having a second reactive functional group, wherein the first reactive functional group is able to react with the second reactive functional group thereby forming a chemical bond. Also disclosed is a lithium secondary battery (100) in which the chemical reaction has occurred.

IPC 8 full level
H01M 2/14 (2006.01); **H01M 2/16** (2006.01); **H01M 4/02** (2006.01); **H01M 4/04** (2006.01); **H01M 4/13** (2010.01); **H01M 4/139** (2010.01); **H01M 50/434** (2021.01); **H01M 50/451** (2021.01); **H01M 50/489** (2021.01)

CPC (source: EP US)
H01M 4/622 (2013.01 - EP US); **H01M 4/623** (2013.01 - EP US); **H01M 50/434** (2021.01 - EP US); **H01M 50/44** (2021.01 - EP US); **H01M 50/446** (2021.01 - EP US); **H01M 50/451** (2021.01 - EP US); **H01M 50/46** (2021.01 - EP US); **H01M 50/489** (2021.01 - EP US); **Y02E 60/10** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP)

Cited by
EP3599655A1; CN108587007A; US11180620B2; WO2018138433A1; EP2642554B1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 2624333 A1 20130807; EP 2624333 B1 20171018; CN 103247819 A 20130814; CN 103247819 B 20161228; JP 2013161784 A 20130819; JP 6164578 B2 20170719; US 2013202944 A1 20130808; US 9450223 B2 20160920

DOCDB simple family (application)
EP 12198939 A 20121221; CN 201310038424 A 20130131; JP 2012285746 A 20121227; US 201213657819 A 20121022